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In Re PATENT of

Parentee: Philipp

FEB 2 1 2006

Patent Number: 6,993,607

Title: Keyboard with Reduced Keying Ambiguity

Serial Number: 10/617,602 Issue Date: 01/31/2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents P. O. Box 1450 Alexandria VA 22313-1450

Re: Request for Certificate of Correction of Office Mistake in accordance with 35 USC 254 and 37 CFR 1.322

Sir:

Certificate

FEB 2 8 2006

1) Description of errors:

of Correction

a) The Office failed to use the most recently amended claims, and instead used an older set.

<u>Details:</u> On 01/27/05 Applicant's agent submitted, by facsimile, an amended claim set that was improper inasmuch as all amendatory markings had been omitted. On realizing the error, he submitted a corrected set of amended claims (see attached). This was received by the Office at 12:44 pm on 01/27/05. The Office apparently used the earlier, incorrect, set instead of the later one and thereby printed a set of claims that improperly contained all the deletions as well as all the additions that were made in the preliminary amendment

- b) In what appears to have been a text-recognition software error, the word "having" was rendered as "baying" in the second to last clause of Claim 11 (Column 10, line 7 of the published patent).
- 2) Request: A certificate of correction under 37 CFR 1.322 is hereby requested. The certificate should note that:
 - In col. 8, line 4, after "thereof" [has been] should be stricken.
 - In col. 8, line 6, after "representative of" [the] should be stricken
 - In col. 8, line 28, after "with is the" [touched] should be stricken;
 - In col. 8, line 31, after "no key" [has been] should be stricken.
 - In col. 8, line 55, after "the controller" [for comparing] should be stricken
 - In col. 8, line 59, after "the count values" [used for supplying the unique key output] should be stricken;
 - In col. 10, line 7, after "of the keys", "baying" should be replaced with having.
- 3) Authority: I, Harald Philipp, am the inventor and holder of the entire ownership interest in subject patent.

4) <u>Declaration</u>: I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of any application, any patent issuing thereon, or any patent to which this verified statement is directed.

10 | Feb | 2006

Date signed

Harald Philipp

Auto-Reply Facsimile Transmission



FFB 2 1 2006

TO:

Fax Sender at 1-727-866-0669

Fax Information

Date Received:

1/27/2005 12:41:36 PM [Eastern Standard Time]

Total Pages: 6 (including cover page)

ADVISORY: This is an automatically generated return receipt confirmation of the facsimile transmission received by the Office. Please check to make sure that the number of pages listed as received in Total Pages above matches what was intended to be sent. Applicants are advised to retain this receipt in the unlikely event that proof of this facsimile transmission is necessary. Applicants are also advised to use the certificate of facsimile transmission procedures set forth in 37 CFR 1.8(a) and (b), 37 CFR 1.6(f). Trademark Applicants, also see the Trademark Manual of Examining Procedure (TMEP) section 306 et seq.

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number Application Number **&ANSMITT**AL Filing Date First Named Inventor &FORM FEB 2 1 2006 Art Unit **Examiner Name** correspondence after initial filing) Attorney Docket Number Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance Communication to TC Fee Transmittal Form Drawing(s) Appeal Communication to Board Licensing-related Papers Fee Attached of Appeals and Interferences Appeal Communication to TC Amendment/Reply Petition (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final **Provisional Application** Proprietary Information Power of Attorney, Revocation Affidavits/declaration(s) Change of Correspondence Address Status Letter Other Enclosure(s) (please Identify **Terminal Disclaimer** Extension of Time Request below): Request for Refund **Express Abandonment Request** CD, Number of CD(s) Information Disclosure Statement Landscape Table on CD **Certified Copy of Priority** Remarks Document(s) Reply to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Name Signature Printed name Date Reg. No. 2005 34640 CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below: Signature **Date** Typed or printed name 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

FEB 2 1 2006

In Re PATENT APPLICATION of

Filing Date: 07/11/2003

Docket: PKT Application Number: 10/617,602

Examiner: Huynh, K. N.

Art Unit: 2182

Title: Keyboard with Reduced Keying Ambiguity

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents TO:

P O Box 1450

Alexandria, VA 22313-1450

A. Introductory Comments

The undersigned erroneously transmitted, on January 27, 2005, a purported preliminary amendment from which all amendatory markings had been omitted. Please disregard that paper and enter the following amendments in the captioned new application.

B. Amendments to the Claims

1(currently amended) An iterative method for controlling an array of non-bistable keys to uniquely determine which one, if any, key of the array thereof has been is being touched by a user, wherein each of the keys provides a respective signal output representative of the a respective coupling of the user thereto, the method comprising the iterated steps of:

comparing the respective signals from all the keys and;

only if a previous iteration determined that the one of the keys had been touched by the user, comparing the respective signal from the previously touched one of the keys with a selected signal threshold value; and if the signal from the previously touched one of the keys exceeds the selected signal threshold value, confirming the previously touched one of the keys to be the key being touched and decrementing a respective counter value uniquely associated with each of the other keys and otherwise:

selecting the key having the highest signal output associated therewith and, if the highest signal output exceeds a <u>the</u> selected signal threshold value, incrementing the respective associated counter value, comparing the incremented counter value with a selected terminal count value and, if the incremented counter value exceeds the terminal count value, determining that the key having the highest signal associated therewith is the touched key <u>being touched</u> and decrementing the respective counter value uniquely associated with each of the other keys; and

otherwise determining that no key has been is being touched by the user.

2(canceled)

3(original) The method of Claim 1 wherein a respective counter value is decremented by reducing it by one count subject to a condition that the value can not be reduced below zero.

4(original) The method of Claim 1 wherein a respective counter value is decremented by setting it equal to zero.

5(original) The method of Claim 1 wherein a respective counter value is decremented by setting it equal to a selected non-zero value.

6(original) The method of Claim 1 wherein each key comprises a respective capacitive proximity sensor.

7(currently amended) A keyboard for supplying a unique key output when a user is proximate two or more keys of a plurality thereof, the keyboard comprising:

a respective sensor uniquely associated with each of the two or more keys, each of the sensors connected to supply a respective output signal representative of the user's coupling thereto to both a controller and to a respective counter;

<u>each counter</u> arranged to count towards a terminal count when the respective proximity signal exceeds a selected signal threshold value and to supply the respective count value to the controller;

the controller for comparing arranged to compare all of the two or more output signals supplied thereto and to select as the key for supplying the unique key output that one of the two or more keys having a maximum of the count values used for supplying the unique key output.

8(original) The apparatus of Claim 7 wherein the controller has an output to each of the counters for initializing a selected one of the counters.

9(currently amended) The apparatus of Claim 7 wherein a computer comprises the

controller and all of the counters, the computer storing the signal threshold value and the terminal count value in memory.

10(original) The apparatus of Claim 7 wherein each key comprises a respective capacitive proximity sensor.

11(currently amended) In a keyboard comprising a plurality of touch responsive keys, wherein each of the keys has a respective signal output responsive to an extent of coupling to a user who touches the keyboard, an iterative method of determining a unique output, subsequent to the touch, the method comprising the steps of:

comparing the respective signal outputs from all the keys with each other and with a selected signal threshold value; and

if a previously selected key has a respective signal output in excess of the signal threshold value, confirming the previous selection of the one of the keys to supply the unique output while suppressing signals from all other keys;

if no key was selected in a previous iteration and at least one of the keys has a respective signal output in excess of the signal threshold value, selecting that one of the at least one of the keys having the highest signal output value to supply the unique output; and

if no key has a respective signal output in excess of the signal threshold value, supplying a null output indicating that the user is no longer touching any of the keys.

12(original) The method of Claim 11 wherein each of the keys comprises a respective capacitive proximity sensor.

C. Remarks

In US 4,954,823, which was noticed to the Office in an Information Disclosure Statement mailed on 12/02/2003, Binstead describes a capacitive touch operated keyboard having a drift compensation circuit for providing a changing threshold. When a user is adjacent multiple keys, Binstead's keyboard selects whichever key provides the maximum signal, and is thus prone to the keying ambiguity that the present invention resolves by suppressing or ignoring signals from other keys as long as the signal from a previously selected key remains above a threshold value.

Date: _______

January 27, 2005

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